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File# 1109 B9

FINAL PLAN OF REMEDIAL ACTION

Brandywine Fibre and Wholesale Electronics Site

Market Street
Wilmington, Delaware

January 2009
DNREC Project No. (DE-1109)

This Final Plan of Remedial Action (Final Plan) presents the Department of Natural Resources and Environmental Control's (DNREC's) determination that surface and subsurface soil at the Brandywine Fibre and Wholesale Electronics Site has been contaminated during historical use as a tannery and for other industrial activity.

DNREC issued public notice of the Proposed Plan for the Site on December 15, 2008 and opened a 20-day public comment period which ended on January 12, 2009. The Proposed Plan requires that:

1. All soils failing the toxicity characteristic leaching procedure will be removed.

2. Other soils will be removed to the extent necessary to achieve regulatory standards for risk (i.e., $1x10^{-5}$ for cancer risk and a hazard index of 1.0 for non-cancer risk). The removal will extend vertically to a maximum of ten-feet below the ground surface

The Proposed Plan also includes the location of additional information found on the DNREC web page and in the DNREC office at Lukens Drive in New Castle.

During the public comment period, DNREC received comments related to public health and safety precautions to be taken during the proposed remedial activities listed above. Therefore, the Proposed Plan was adopted as the Final Plan (see attached). The comments will be addressed in the Remedial Action Work Plan and the Health and Safety Plan.

Approval:
This Final Plan meets the requirements of the Hazardous Substance Cleanup Act.

Kathleen Stiller Banning 1/4/09
Kathleen Stiller-Banning, Program Manager II
Division of Air and Waste Management

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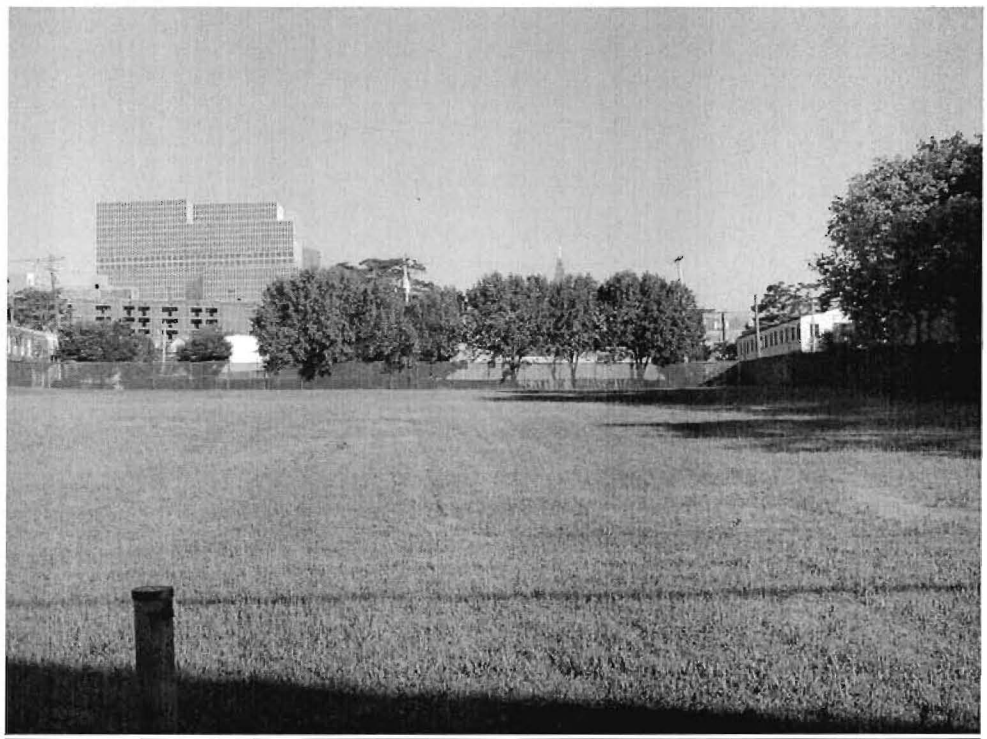
PROPOSED PLAN OF REMEDIAL ACTION

Brandywine Fibre and Wholesale Electronics Site
Wilmington, Delaware
DNREC Project No. DE-1109
December 2008



View of the site from Clifford Brown Walk

Delaware Department of Natural Resources and Environmental Control
Division of Air and Waste Management
Site Investigation & Restoration Branch
391 Lukens Drive
New Castle, Delaware 19720

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PROPOSED PLAN OF REMEDIAL ACTION

Brandywine Fibre and Wholesale Electronics Site
Wilmington, Delaware
DNREC Project No. DE-1109

Approval:
This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

Approved by:

James D. Werner, Director
Division of Air & Waste Management

11 Dec 2008
Date

Brandywine Fibre and Wholesale Electronics Site

What is the Brandywine Fibre and Wholesale Electronics Site? The Brandywine Fibre and Wholesale Electronics Site is the city block bound by 14th, 15th, and Walnut Streets and Clifford Brown Walk in Wilmington, Delaware . It is a fenced, undeveloped grass-covered lot . (Figure 1.) The site is a *Certified Brownfield* property with no current plan for re-development. The owner is Bracebridge Corporation. The former owner is Brandywine Fibre Products Company.

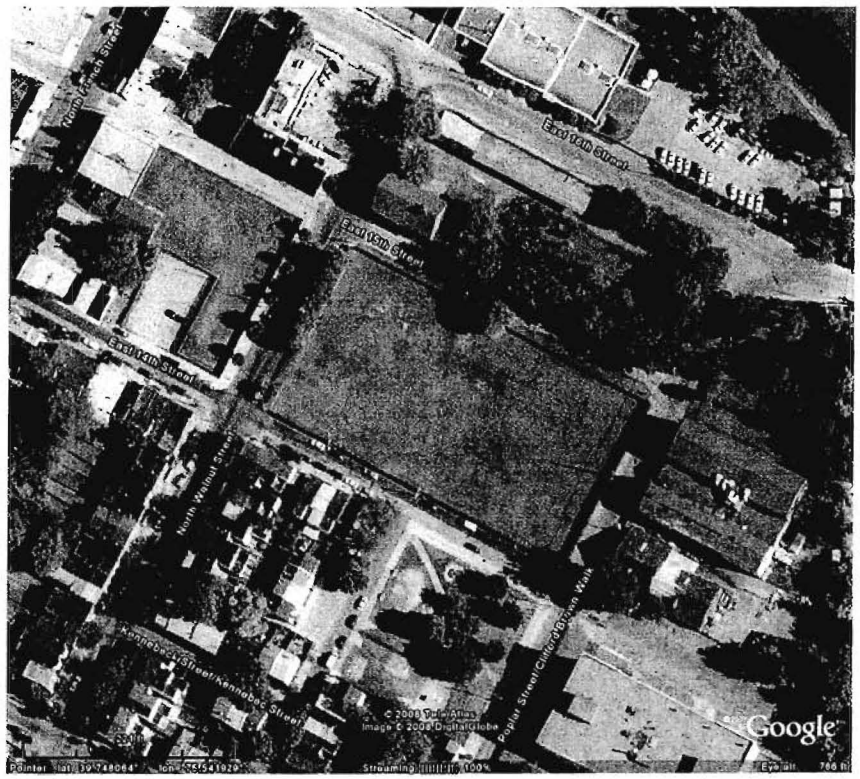

Figure 1 The Brandywine Fibre Site is a grassy field occupying the city block at 14th St and Clifford Brown Walk in Wilmington.

Tax Parcel Number: 26-029.301 29
Address: 1421 Clifford Brown Walk, Wilmington Delaware 19801
Nearest major intersection: 14th Street and Clifford Brown Walk
Area: 1.2 Acres
Surrounding Property: Surrounding land use is mixed use residential, commercial, and light industrial. The Urban Environmental Institute is across 15th street from the property.
Zoning: 26M-1 - Light Manufacturing
Site Utilities: None currently; city water and sewer service is available.
Surface water: Brandywine Creek is located approximately 200 feet to the east of the site.
Topography: Slopes gently to the south, toward Clifford Brown Walk.
Groundwater: Groundwater flows to the south-southeast toward the Brandywine Creek. Ground water is between 12 and 17 feet below grade. Bedrock is between 10 and 14 feet below grade.

What happened at the Brandywine Fibre and Wholesale Electronics Site? In its history, the property has been occupied by industries such as match factories, tanneries, a vulcanized fiber factory, a silk mill, a electronic supplies and repair facility, a company that repackaged automobile racing fuels, and possibly an automobile repair facility.

Bracebridge Corporation purchased the Property from Brandywine Fibre Products Company in 1997. At the time that Bracebridge Corporation acquired the Property, the most recent uses were related to the vulcanized fiber plant and the electronics supply and repair facility. Buildings associated with those uses were demolished. In September 1998, the surface of the site was covered with 6,850 cubic yards of clean fill, seeded, and fenced to minimize potential human exposure to substances of concern. See Figure 2.

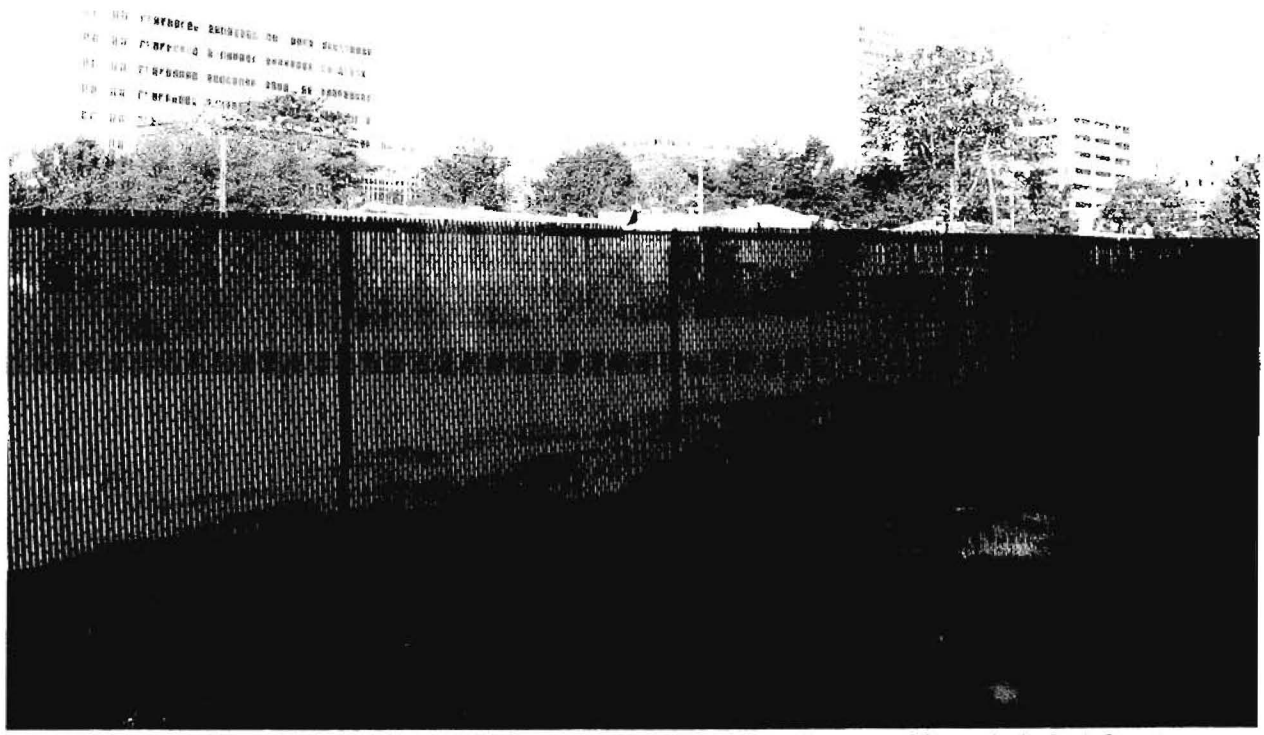

Figure 2 View of the site from 15th Street. The site is currently secured by a chain link fence.

What is the environmental problem at the Brandywine Fibre and Wholesale Electronics Site? Historic land use at the Property has resulted in elevated concentrations of organic and metal compounds in the soil. Risk assessment indicates that the cumulative risk associated with these substances in soil is above acceptable levels.

Environmental investigations have identified several types of apparent fill materials across the site (soil, ash, slag, and tannery waste) that are impacted by polynuclear aromatic hydrocarbons (PAHs) and metals (antimony, arsenic, cadmium, chromium, lead, and zinc). Free-phase petroleum has also been observed at some locations within the site soils.

There are:

- Eight historical fill areas.
- Five areas of soils that contain petroleum.
- Four areas of subsurface soil that contain metals and corrosive substances at concentrations or in physical states that would likely be characterized as hazardous waste for disposal under the Resource Conservation and Recovery Act (RCRA).

The site soils are unacceptable for residential land use. Ground water does not pose a risk to human health or the environment.

What does the owner want to do at the Brandywine Fibre and Wholesale Electronics Site? Development plans are not final. The owner of the property, Bracebridge Corporation, plans to remediate the site and make it suitable for residential use. Although details construction plans have not been finalized, the future development will be in character with the surrounding neighborhood—low-rise residential or light commercial with shallow footings and slab-on-grade construction or footings and basement construction.

What clean-up actions have already been taken at the former Brandywine Fibre and Wholesale Electronics Site? Several industrial buildings were demolished. In September 1998 the site was covered with clean fill, planted with grass, and fenced.

What clean-up actions are needed at the former Brandywine Fibre and Wholesale Electronics Site? Analytical results have indicated that the site soils are not suitable for residential use. Bracebridge Corporation intends to remediate the site soils to residential use standards.

Proposed remediation plan for the site:

1. All soils failing the toxicity characteristic leaching procedure will be removed.
2. Other soils will be removed to the extent necessary to achieve regulatory standards for risk (i.e., 1×10^{-5} for cancer risk and 1.0 for non-cancer risk). The removal will extend vertically to a maximum of ten-feet below the ground surface. (Ten feet includes the maximum expected excavation for foundations plus an additional 2 feet for sewer service.)
3. No restrictions will be placed on the use of the property after remediation to the prescribed depth.

What are the long term plans for the Site after the cleanup?

The site owner has not finalized a development plan for the site. Long-term plans for the site may include mixed residential and commercial uses. DNREC will issue a Certificate of Completion of Remedy for the site after the completion of clean-up.

How can I find additional information or comment on the Proposed Plan?

The complete file on the site including the Remedial Investigation and Feasibility Study report are available at the DNREC office, 391 Lukens Drive in New Castle. Most documents are also found on:

http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/

The 20-day public comment period begins on December 15, 2008 and ends at close of business (4:30 pm) on January 12, 2009. Please send written comments to the DNREC office or call Stephen Johnson, Project Manager, at: 302-395-2600.

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Glossary of Terms Used in this Proposed Plan

Brownfield	Property that is vacant or underutilized because of the perception or presence of an environmental problem.
Certified Brownfield	A brownfield that DNREC has determined is eligible for partial funding through the Delaware Brownfields Program.
Contaminant of Concern (COC)	These are potentially harmful substances at concentrations above acceptable levels (eg metals and PAH).
Certificate of Completion of Remedy (COCR)	A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed.
Exposure	Contact with a substance through inhalation, ingestion, or direct contact with the skin. Exposure may be short term (acute) or long term (chronic).
Final Plan of Remedial Action	DNREC's proposal for cleaning up a hazardous site after it has been reviewed by the public and finalized.
Hazardous Substance Cleanup Act (HSCA)	Delaware Code Title 7, Chapter 91. The law that enables DNREC to identify parties responsible for hazardous substances releases and requires cleanup with oversight of the Department.
Human Health Risk Assessment (HHRA)	An assessment done to characterize the potential human health risk associated with exposure* to site related chemicals.
Proposed Plan of Remedial Action	A plan for cleaning up a hazardous site submitted by DNREC and subject to public comments.
Risk	Likelihood or probability of injury, disease, or death.
Risk Assessment Guidance for Superfund (RAGS)	An EPA guidance document for superfund sites
Site Specific Assessment (SSA) and Site Inspection (SI)	Environmental studies of a site including sampling of soils, groundwater, surface water, sediment and/or wastes on the property.

What is a *Proposed Plan?*

A Proposed Plan of Remedial Action (Proposed Plan) is a summary of how DNREC plans to clean up a contaminated site. A Final Plan of Remedial Action (Final Plan) is the adoption of the Proposed Plan, after all comments made by the public within the comment period of twenty days have been considered and addressed by DNREC.

The Delaware State Legislature passed the Hazardous Substance Cleanup Act (HSCA) in 1990. The Legislature made sure that members of the public would be informed about environmental problems in their own neighborhoods and have a chance to express their opinion concerning the clean up of those environmental problems before DNREC takes action.

After DNREC studies a site, it summarizes the problems there and proposes one or more possible solutions in a Proposed Plan. The Proposed Plan contains enough information to allow lay persons to understand the site. More detailed information can be found in the reports and documents approved by DNREC. All of the documents and reports created by DNREC or consultants during the course of the investigation of the site are available to the public at the offices of DNREC-SIRB or at DNREC's website:

http://www.dnrec.state.de.us/dnrec2000/Divisions/AWM/sirb/sitefiles.asp.

DNREC issues the Proposed Plan by advertising it in at least one newspaper in the county where the site is located. The legal notices for the Proposed Plans and the Final Plans usually run on Wednesdays or Sundays in the legal classified section of the News Journal and/or the Delaware State News. The public comment period begins on the day (Wednesday), or the day after (Sunday) the newspaper publishes the legal notice for the Proposed Plan.

DNREC frequently holds public meetings during the comment period. Those meetings are usually held near the site in the evening. Citizens can request a public meeting if DNREC did not already schedule one.

Comments are collected at the public meetings, by phone or in writing. DNREC considers all comments and questions from the public before the Proposed Plan is finalized and adopted as a Final Plan.